

**REMARKS**

Claims 1, 5-13 and 22 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 4-13 and 19 of copending Application No. 10/676,891 in view of U.S. Patent No. 5, 983, 251 to Martens et al (Martens et al).

Claim 1 is amended to correct a minor typographical error wherein the word “a” was omitted from the original claim.

Applicant respectfully argues traverse of this rejection as the claims are patentably distinct and non-obvious over claims in Application No. 10/676,891. Claims 1, 5-13 and 22 comprise the limitation of “an initial reference frameset (IRF), wherein said IRF comprises an initial pixel pattern” and wherein “pixel values are placed in a position that is dispersed from the position of pixel values in said initial pixel pattern.” These elements are not taught in the combination of Application No. 10/676,891 and U.S. Patent No. 5, 983, 25. Application No. 10/676,891 teaches a dither pattern creation method wherein pixel values are dispersed from each other with no relation to an initial reference frameset (IRF). Martens et al is non-analogous art that simply mentions that video sequences are divided into frames. Martens et al has no reference to dither pattern creation. It would not have been obvious to one skilled-in-the-art to combine Application No. 10/676,891 and Martens et al because Martens et al is not related to dither pattern creation, but is simply related to the general field of video processing. This relationship is not sufficiently intimate to render a combination obvious.

Analogous art is art that is either in the field of technology of the claimed invention or deals with the same problem solved by the claimed invention. *In re Wood*, 599 F.2d 1032 (CCPA 1979). The “field of technology” described by the court is narrower than a broad field encompassing any science vaguely related to image processing or video processing. In *In re Pagliero*, 657 F.2d 1219 (CCPA 1981), the court ruled that a prior art reference relating diuretic solubilities of oil/serum mixtures to oil/water mixtures was non-analogous to the applicants method of decaffeination using a liquid, water-immiscible fatty material. In *In re Clay*, 657 F.2d 1219 (CCPA 1981), the

court ruled a prior-art process non-analogous when both the applicant's claimed process and the prior art both related to handling petroleum in volumetric enclosures. The claimed invention related to storing petroleum in man-made tanks while the prior art reference related to extracting crude from hydrocarbon-bearing natural underground formations. In *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993), the court ruled that prior art disclosing SRAM memory, typically used in mainframes, was non-analogous to SIMM memory modules, typically used in PCs.

Prior art references used in an obviousness rejection must be more closely related than sharing a broad field of technology. Simply because all references contain the word "reference frame" or relate to distant corners of the field of video processing does not make the combination proper. The references must be related to the same problem and specific field of endeavor. In the present rejection these claims, these references are too disparate to be properly combined.

Accordingly, applicant respectfully requests that is rejection be withdrawn without submission of a Terminal Disclaimer.

Claims 1-22 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Claim 22 has been amended to comprise limitations that restrict it to a computer-readable medium, which is currently statutory subject matter.

Claims 1-21 have not been amended in response to this rejection because they are phrased as method claims that create specific dither pattern arrays, which can be expressed in code or in the form of an image. These claims recite processes that produce concrete, tangible results that are applicable to a specific area of the technological arts. Accordingly, they are statutory subject matter. Applicant requests that this rejection be withdrawn.

Claims 1-4 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5, 983, 251 to Martens et al (Martens et al) in view of U.S. Patent No. 6,091,849 to Spaulding et al (Spaulding et al).

This rejection is improper in that it fails to present a prima facie case of obviousness. Martens et al teach a method of “extracting one or more systematic data structures found in the variations in the input sequence of data being analyzed” (col. 4, lines 15-17). These processes relate to sequences of video images and involve the relationships between successive frames of video sequences. Spaulding et al teach methods of halftoning multi-color-channel still images, which is a process related to printing still images on hard copy media. There is no relationship at all between these processes other than the fact that they both comprise words used in the present claims with different definitions and contexts. A halftone dither pattern, as discussed in Spaulding et al, is a binary pattern of dots used to create an effect that may be perceived as shading or grayscale on printed media. A *halftone* dither pattern has no relationship to video frames because it is related to a printing process. The reference frame of Martens et al relates to a common frame of a video sequence, but has no relationship to a dither pattern used for processing video sequences. This rejection is improper as one skilled-in-the-art would not be motivated to combine the references from very different areas of image processing.

Further, if the methods of these references were combined, the resulting combination process would not function. If the intended function is destroyed by the combination, the combination does not present a prima facie case of obviousness. In re Gordon, 733 F.2d 900 (Fed. Cir. 1984).

Additionally, neither of these references is analogous art to the presently-claimed invention. Martens et al teaches a method of extracting one or more systematic data structures found in the variations in an input sequence, which, while relating to the broad field of video processing, has nothing at all to do with dither patterns of video images. Spaulding et al teaches color halftoning, which relates to printing of still images and has

no relation to video whatsoever. Accordingly, this rejection is improper since the art is non-analogous to the presently-claimed invention, which claims a dither pattern related to a frameset (e.g., video frameset), which distinguishes from a halftone dither pattern. Accordingly, this rejection is improper in its use of non-analogous art. The basis for this argument is described above in relation to the non-statutory obviousness-type double patenting rejection.

This rejection also fails to present a prima facie case of obviousness as the combination does not teach the elements of the rejected claims. The examiner relies on Martens to teach an initial reference frame and relies on Spaulding to teach an, albeit unrelated, dither pattern, however, this combination does not teach a dither pattern that is related to an initial reference frame and pixel values in the dither pattern frameset as claimed in these claims. Accordingly, applicant respectfully requests that this rejection be withdrawn.

Claims 5-13 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,091,849 to Spaulding et al (Spaulding et al) in view of U.S. Patent No. 5,766,807 to Delabastita et al (Delabastita et al) and further in view of U.S. Patent No. 7,110,455 to Wu et al (Wu et al).

This rejection also fails to present a prima facie case of obviousness. Spaulding et al and Delabastita et al relate to halftoning still images for printing on media while Wu et al relates to a pre-processor for digital video. Accordingly, as stated above for the previous rejection, Spaulding et al and Delabastita et al are non-analogous art. Furthermore, one skilled-in-the-art would not be motivated to combine Spaulding et al and Delabastita et al with Wu et al as they are from very different and unrelated areas of image processing. Additionally, the combination of Spaulding et al and Delabastita et al with Wu et al would result in a combination that would destroy the original intent of the claims as these very different, unrelated processes would not function in any way.

This rejection also fails to present a prima facie case of obviousness since the combination does not teach all the elements of the rejected claims. The examiner relies on Spaulding to teach an, unrelated, dither pattern, however, this combination does not teach a dither pattern that is related to an initial reference frame and pixel values in the dither pattern frameset as claimed in these claims. Accordingly, applicant respectfully requests that is rejection be withdrawn.

Claims 14-18, 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,683,490 to Stolle et al (Stolle et al) in view of U.S. Patent No. 6,091,849 to Spaulding et al (Spaulding et al) and further in view of U.S. Patent No. 5,766,807 to Delabastita et al (Delabastita et al).

This rejection also fails to present a prima facie case of obviousness. Stolle et al and Delabastita et al relate to halftoning still images for printing on media while Stolle et al relates to a video signal processing apparatus. Accordingly, as stated above for the previous rejections, Spaulding et al and Delabastita et al are non-analogous art, completely unrelated to the present claims. Furthermore, one skilled-in-the-art would not be motivated to combine Spaulding et al and Delabastita et al with Stolle et al as they are from very different and unrelated areas of image processing. Additionally, the combination of Spaulding et al and Delabastita et al with Stolle et al would result in a combination that would destroy the original intent of the claims as these very different, unrelated processes would not function in any way.

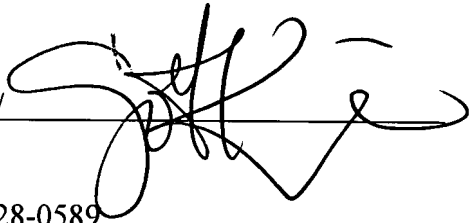
This rejection also fails to present a prima facie case of obviousness since the combination does not teach all the elements of the rejected claims. The examiner relies on Stolle et al to teach a spatio-temporal dither pattern array, however, Stolle et al simply explains attributes, including the temporal dimension, of standard NTSC video. Stolle et al do not teach anything related to dither pattern arrays. The examiner appears to be citing Stolle et al simply because the reference contains the word "spatio-temporal," while this term does not apply to a spatio-temporal dither pattern array as clearly stated in

the rejected claims. Since Spaulding et al and Delabastita et al relate to halftoning they have nothing to do with a spatio-temporal array as halftoned still image have no temporal component. While the examiner relies on Delabastita et al for disclosing a "tile," but the tile of this reference is a spatial, still-image halftone tile, which is unrelated to the spatio-temporal tiles of the present claims. The examiner relies on Spaulding et al to teach multiple color channels, however there is no teaching of a dither pattern array wherein pixel values are dispersed from dither pattern tiles in other color channels as claimed in the rejected claims.

Accordingly, applicant respectfully requests that is rejection be withdrawn.

In light of the above amendments and arguments, applicant requests that this application be allowed in its current form.

Respectfully submitted,

  
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